

Please replace the paragraph at page 1, lines 2-9 with the following amended paragraph to add two headings to the specification.

FIELD OF THE INVENTION

The invention relates to secure computer systems designed so as to have a level of security that is quantifiable (i.e., a level of detecting any operating fault that is demonstratable). A particularly important although non-exclusive application of the invention lies in installations for running rail track systems automatically where it is essential to detect any fault that might cause an incident.

DESCRIPTION OF RELATED ART

Please replace the paragraph at page 4, lines 5-10 with the following amended paragraph to add one heading to the specification.

Document GB-A-2 169 114, to which reference can also be made, discloses a computer system having a processor and a coprocessor and processing input data associated with codes; the codes remain associated with the data within the processor, thereby complicating the task it has to perform.

SUMMARY OF THE INVENTION

Please replace the paragraph at page 6, lines 32-38 with the following amended paragraph to add one heading to the specification.

The proposed architecture eliminates constraints associated with security when selecting a processor (or processors) and its real time operating system (software). There is no significant loss in the processor's real time computation power and any processing error that is due to any hardware failure or any intrusion in the processing will be detected.

BRIEF DESCRIPTION OF THE DRAWINGS

Please replace the paragraph at page 7, lines 6-7 with the following amended paragraph to add one heading to the specification.

- Figure 4 is a diagram showing one possible structure for the security peripheral.

DESCRIPTION OF THE PREFERRED EMBODIMENTS